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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,453	11/30/2000	Jonathan J. Hull	15358-006220US	2461

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EXAMINER

BROWN, RUEBEN M

ART UNIT	PAPER NUMBER
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2623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/728,453	Applicant(s) HULL ET AL.	
	Examiner REUBEN M. BROWN	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/27/07;1/28/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/28/2008 have been fully considered but they are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, (U.S. Pat # 6,249,281), in view of Qureshi, (U.S. Pat # 6,396,500) and Zhang, (U.S. Pat #5,635,982).

Considering claims 1 & 40, the amended claimed method of communicating information received during a multimedia presentation comprising;

'providing an adapter comprising a transceiver', is met by the On-Demand Presentation Module 310 (i.e., adapter) and (transceiver), which generates the On-Demand Presentation 330 from the presentation slides 315 and audio/video 320; see Fig. 3; col. 3, lines 51-60; col. 4, lines 17-25.

'receiving, at the adapter at least one of video information or audio information from a first system, the at least one of video information or audio information being generated from a presentation file' corresponds with the disclosure in Chen, which teaches that the Module 310 receives a series of slides 315, via the Link Module 314, see Fig. 3.

However, even though Chen teaches slides 315, the reference does not explicitly teach the slides 315 may contain audio/video information. Nevertheless Qureshi, which is in the same field of endeavor (multimedia slides), teaches that the slides may be audio, video or some other multimedia format, see col. 10, lines 1-42. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Chen with the teachings of Qureshi, using audio, video, etc. in slides, at least for the desirable benefit of providing the user with more multimedia options.

'receiving at the adapter, at least one audio or video information from a capture device, the information captured by the capture device during the multimedia presentation', is met by the disclosure of Chen of an audio/video presentation 320 being received at the Module 310, concurrently with the presentation of the slide 315; see Fig. 3; col. 3, lines 52-67, thru col. 4,

lines 1-40. Chen teaches that the audio/video 320 may be a live or recorded event, and thus is inherently captured by a capture device.

'communicating from the adapter using the transceiver information from the first system and the information received from the capture device', reads on the discussion in Chen of the On-Demand Module 310, receiving both the slides 315, that have been synchronized with the audio/video 320 and transmitting them (as the On-Demand Presentation 330) to the presentation server(s) 110; col. 4, lines 26-46.

Examiner points out that Chen includes an additional embodiment shown in Fig. 4, which contains elements that correspond with those cited above, and thus also reads on the claimed subject matter. For instance, the On-Demand Presentation Module 310 (i.e., adapter and transceiver) of Fig. 3; is repeated in Fig. 4. Whereas, the slides 315 corresponds with the presentation application 410 of Fig. 4 and the capture device of Fig. 3, corresponds with the camera 454 and microphone 452 of Fig. 4, which receive video and audio, respectively, and present them, via interface 420 to the On-Demand Presentation Module 310.

As for the further amended feature of *'selecting, at the adapter, a set of one or more keyframes from the video received from the first system or the capture device'*, Chen teaches including a thumbnail presentation of each slide that includes a time portion for synchronizing with an image portion, see col. 5, lines 45-67. Chen does not explicitly teach the use of

keyframes.

Nevertheless, Zhang discloses a technique of extracting keyframes from a video sequence, at least for the purpose of indexing the instant video sequence, see col. 1, lines 55-67 thru col. 2, lines 1-16. As for the amended claimed features, '*differencing between a first frame and a second frame at the adapter; selecting, based on the differencing, at the adapter, a set of keyframes...in response to a user configurable threshold*', Zhang teaches all subject matter, see Abstract; col. 2, lines 10-16; col. 3, lines 1-65; col. 7, lines 31-62; Fig. 4; Fig. 4A.

Specifically, the cited portions of Zhang disclose an algorithm that determines the difference D_i between two frames, i & $i-S$, such that if D_i is greater than a threshold T_k , then a second difference D_a is taken between the current frame and the current keyframe F_k to verify that current frame is a keyframe. Subsequently, if D_a is greater than a threshold, T_d , then the current frame is determined to be a keyframe. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Chen with the technology of keyframes, at least for the advantage of providing an indexing mechanism, which allows for more efficient retrieval of subsets of frames of the instant video sequence, as taught by Zhang, col. 7, lines 52-62. As for the specifics of the '*user selectable threshold*', Zhang teaches that the threshold may be chosen to be preset or determined by a calculation, col. 3, lines 5-50 & col. 6, lines 65-67 thru col. 7, lines 1-28.

The claimed '*physical adapter*', recited in claim 40 reads on the physical components that make up and carry out the instructions of the On-Demand Presentation module 310, see Fig. 3; col. 2, lines 25-40; col. 3, lines 21-67.

Considering claims 2, 15 & 28, the claimed '*audio capture device*' is met by the disclosure in Chen of the audio/video presentation 320, which inherently includes an audio capturing device. Furthermore, Fig. 4 of Chen explicitly shows a microphone 452, which also reads on the claimed audio capture device. Also, Chen & Zhang are directed to encoding frames.

Considering claims 3, 16 & 29, the claimed feature of '*storing the set of keyframes in a memory coupled to the adapter*', reads on the combination of storing frames in presentation servers 110, Chen col. 4, lines 26-48 and the disclosure of keyframes in Zhang.

Considering claims 4, 17 & 30, the claimed feature of '*transmitting a first portion of the presentation upon receiving a request*', is met by the discussion in Chen, that the On-Demand Presentation 330 may be transmitted to the presentation server(s) 110 and the clients 135 upon request by one or more client(s) 135, see col. 4, lines 26-50. As for the specific of the 'keyframes' the subject matter is met by the combination of Chen & Zhang.

Considering claims 5-8, 18-21 & 31-34, the claimed subject matter is encompassed by the citations of Chen discussed above, with respect to claims 5, 18 & 31. In particular, the On-

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Demand Presentation 330 includes the information from the presentation slides 315 and the audio/video 320, which reads on the claimed subject matter.

Considering claims 9, 22 & 35, the amended claimed feature of the *'device requesting transmission of the audio or video information received at the adapter from the first system and the capture device between a start time and end time'*, is broad enough to read on the disclosure in Chen of a user at a presentation device selecting a particular slide from a display of slide thumbnails, such that in at least one embodiment, when a particular thumbnail is selected by a mouse pointer, that instant slide will appear in the primary window 510 and the audio/video presentation will jump to the corresponding audio/video information in the window 520, see col. 5, lines 40-67 thru col. 6, lines 1-32

Considering claims 10, 23 & 36, the claimed feature of *'selecting a plurality of video frames from the video information received by the adapter, and synchronizing the plurality of video frames with the audio information received by the adapter'*, reads on the combination of Chen and Qureshi, as discussed above with respect to the rejection of claims 1, 14 & 27. Chen teaches synchronizing a plurality of slide frames 315 with audio/video presentation 320. However, Chen does not explicitly teach that the frames 315 may be video, nevertheless, as pointed out above in the rejection of claims 1, 14 & 27, Qureshi teaches that slides may be video information, and that it would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Chen with the teachings of Qureshi, at least for the desirable advantage of providing the user with a wider range of multimedia to access.

Considering claims 11, 24 & 37, Qureshi teaches the additionally claimed feature of *'generating a web page for each video frame'*, is met by the operation of the HTML page creation module 110, which generates slides page 120; see col. 6, lines 34-40; col. 7, lines 52-67 thru col. 8, lines 20 & col. 10, lines 66-67 thru col. 11, lines 1-26.

As for the further claimed feature of *'assigning a URL to each web page'*, the instant claimed feature is inherently provided by the HTML disclosure in Qureshi, Abstract; col. 10, lines 50-67 thru col. 11, lines 1-26 & Fig. 3. HTML stands for *'hypertext mark-up language'*, therefore by definition; each HTML page created in Qureshi has a URL with which it is linked, so that the instant web page can be accessed, using a browser program 122, such as discussed in Qureshi. In particular, Fig. 3 shows the URL of the current web page in the address bar of the browser window.

Likewise, the additionally claimed feature of *'transmitting at least a portion of the first representation comprises transmitting at least one URL assigned to a web page'*, is met by the URL that is assigned to each HTML page, so that that page can be accessed according to the hypertext mark-up language protocols.

Considering claims 12, 25 & 38, the claimed subject matter corresponds with the well known protocols for retrieval of a web page from a server, using URL technology, and is thus

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also met by the disclosure of Qureshi, which supports the Internet, col. 2, lines 8-67; col. 9, lines 37-67.

Considering claims 13, 26 & 39, the *'selecting the set of one or more keyframes in response to the user-selectable threshold comprises selecting frames of video at a predetermined sampling interval'*, reads on the disclosure in Zhang that each frame i-S is compared to its next frame i. Zhang also teaches that the invention may operate by skipping at least one frame, see col. 6, lines 30-45. As for the claimed *'user selectable threshold'*, Zhang discloses that the threshold may be preset or determined by experiment, as chosen by an operator, see col. 3, lines 7-40; col. 6, lines 65-67 thru col. 7, lines 1-28; col. 7, lines 10-29.

Considering claim 14, the claimed computer program product stored on a computer readable medium, and executed by an adapter for communicating information received during a multimedia presentation, comprises elements that correspond with subject matter mentioned above in the rejection of claim 1 and is likewise treated.

In particular, Chen teaches that the invention is embodied on a computer, and uses memory to store executable instructions, col. 3, lines 15-50.

Considering claim 27, the claimed system for communicating information received during a multimedia presentation, comprising elements that correspond with subject matter mentioned above in the rejection of claim 1, are likewise treated.

Claim 27 additionally recites '*an input module*' and '*a communication module*'. The claimed '*input module*' is met by the On-Demand Presentation Module 310, Fig. 3, while the '*communication module*' is also met by the operation of the On-Demand Presentation Module 310, which transmits the audio/video presentation information to Presentation Server(s) 110, see col. 4, lines 1-50.

Considering claims 41-42 & 44-45 the claimed subject matter reads on the discussion in Zhang of finding the key frames, col. 7, lines 31-61.

Considering claims 43 & 46, the claimed subject matter reads on the discussion in Zhang that at least one option for the differencing algorithm is comparing the histograms, (which reads on image pixels) of the two compared frames, col. 3, lines 17-67 thru col. 4, lines 1-24.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's claims.

A) Ratakonda, Dufaux Teaches determining keyframes by detecting frame differences between successive frames, see Abstract.

B) Astle Teaches indexing a video sequence, by determining keyframes.

C) Wilf Generic teaching of selecting key frames in a video sequence.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

or faxed to:

(571) 273-8300, (for formal communications intended for entry)

Or:

(571) 273-7290 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REUBEN M. BROWN M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F(8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reuben M. Brown

/Chris Kelley/
Supervisory Patent Examiner, Art Unit 2623